

NNN	NNN	CCCCCCCCCCCC	PPPPPPPPPPPP
NNN	NNN	CCCCCCCCCCCC	PPPPPPPPPPPP
NNN	NNN	CCCCCCCCCCCC	PPPPPPPPPPPP
NNN	NNN	CCC	PPP
NNN	NNN	CCC	PPP
NNN	NNN	CCC	PPP
NNNNNN	NNN	CCC	PPP
NNNNNN	NNN	CCC	PPP
NNNNNN	NNN	CCC	PPP
NNN	NNN	NNN	PPPPPPPPPPPP
NNN	NNN	NNN	PPPPPPPPPPPP
NNN	NNN	NNN	PPPPPPPPPPPP
NNN	NNNNNN	CCC	PPP
NNN	NNNNNN	CCC	PPP
NNN	NNNNNN	CCC	PPP
NNN	NNN	CCC	PPP
NNN	NNN	CCC	PPP
NNN	NNN	CCC	PPP
NNN	NNN	CCC	PPP
NNN	NNN	CCCCCCCCCCCC	PPP
NNN	NNN	CCCCCCCCCCCC	PPP
NNN	NNN	CCCCCCCCCCCC	PPP

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NN   NN  CCCCCCCC  PPPPPPPP  SSSSSSSS  TTTTTTTTTT  AAAAAAA  VV  VV  RRRRRRRR  BBBBBBBB
NN   NN  CCCCCCCC  PPPPPPPP  SSSSSSSS  TTTTTTTTTT  AAAAAAA  VV  VV  RRRRRRRR  BBBBBBBB
NN   NN  CC  PP  PP  SS  TT  AA  AA  VV  VV  RR  RR  BB  BB  B
NN   NN  CC  PP  PP  SS  TT  AA  AA  VV  VV  RR  RR  BB  BB  B
NNNN  NN  CC  PP  PP  SS  TT  AA  AA  VV  VV  RR  RR  BB  BB  B
NNNN  NN  CC  PP  PP  SS  TT  AA  AA  VV  VV  RR  RR  BB  BB  B
NN  NN  NN  CC  PPPPPPPP  SSSSSS  TT  AA  AA  VV  VV  RRRRRRRR  BBBBBBBB
NN  NN  NN  CC  PPPPPPPP  SSSSSS  TT  AA  AA  VV  VV  RRRRRRRR  BBBBBBBB
NN  NNNN  CC  PP  SS  TT  AAAAAAAA  VV  VV  RR  RR  BB  BB  B
NN  NNNN  CC  PP  SS  TT  AAAAAAAA  VV  VV  RR  RR  BB  BB  B
NN  NN  CC  PP  SS  TT  AA  AA  VV  VV  RR  RR  BB  BB  B
NN  NN  CC  PP  SS  TT  AA  AA  VV  VV  RR  RR  BB  BB  B
NN  NN  CCCCCCCC  PP  SSSSSSSS  TT  AA  AA  VV  RR  RR  BBBBBBBB
NN  NN  CCCCCCCC  PP  SSSSSSSS  TT  AA  AA  VV  RR  RR  BBBBBBBB

```

A 10x10 grid of letters. The letters are arranged in a pattern: the first four columns (rows 1-4) are filled with 'L's; the next four columns (rows 5-8) are filled with 'T's; and the final two columns (rows 9-10) are filled with 'S's. The letters are in a bold, black, sans-serif font.

0001 0 XTITLE 'Verb Parse States and Data'  
0002 0 MODULE NCPSTAVRB (IDENT = 'V04-000', LIST(NOOBJECT)) =  
0003 1 BEGIN  
0004 1  
0005 1  
0006 1 \*\*\*\*\*  
0007 1 \*  
0008 1 \* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY  
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0024 1 \* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.  
0025 1 \*  
0026 1 \*  
0027 1 \*\*\*\*\*  
0028 1  
0029 1  
0030 1 \*\*  
0031 1 FACILITY: Network Control Program (NCP)  
0032 1  
0033 1 ABSTRACT:  
0034 1  
0035 1 States and data for the parsing of NCP command verbs  
0036 1  
0037 1 ENVIRONMENT: VAX/VMS Operating System  
0038 1  
0039 1 AUTHOR: Darrell Duffy , CREATION DATE: 10-September-79  
0040 1  
0041 1 MODIFIED BY:  
0042 1  
0043 1 V03-008 PRD0099 Paul R. DeStefano 01-May-1984  
0044 1 Set the ACTSGL\_NO\_XAREA\_Q flag if command is TELL  
0045 1 or SET EXEC and no area address is specified.  
0046 1 ACT\$SAVPRM (in module NCPVRBACT) will key off this  
0047 1 flag and the fact that the parameter block address  
0048 1 will be PBK\$G\_VRB\_XID and set the area to 1.  
0049 1  
0050 1 V03-007 PRD0064 Paul R. DeStefano 05-Feb-1984  
0051 1 Change ACTSGL\_NO\$ADR\_Q references to ACT\$GL\_ADR\_Q.  
0052 1  
0053 1 V03-006 PRD0062 Paul R. DeStefano 05-Feb-1984  
0054 1 Allow OBJECT parameter to accept both name and number.  
0055 1  
0056 1 V03-005 PRD0055 Paul R. DeStefano 05-Feb-1984  
0057 1 Enable X25-Access parsing.

58	0058	1				
59	0059	1	V03-004	RPG0004	Bob Grosso	24-Mar-1983
60	0060	1		Add CONNECT CONSOLE.		
61	0061	1				
62	0062	1	V03-003	RPG0003	Bob Grosso	24-Sep-1982
63	0063	1		Parse for node area.		
64	0064	1				
65	0065	1		Set/Def Module configurator, console, loader, looper.		
66	0066	1	V03-002	RPG0002	Bob Grosso	14-Sep-1982
67	0067	1		Fix prompting so X-S is ambiguous.		
68	0068	1		Clear ncp\$gl_qualprs so that ALL checking works.		
69	0069	1		Make X25-P a noise word.		
70	0070	1		Clear ncp\$gl_noparms so that parameter can be turned off.		
71	0071	1				
72	0072	1	V03-001	RPG0001	Bob Grosso	27-Jul-1982
73	0073	1		Add SET X25-TRACE and SET X29-SERVER		
74	0074	1				
75	0075	1	V003	TMH0003	Tim Halvorsen	20-Jan-1982
76	0076	1		Fix prompt for object name to reflect an increase		
77	0077	1		in its maximum size (now 12 characters).		
78	0078	1				
79	0079	1	V002	TMH0002	Tim Halvorsen	10-Jul-1981
80	0080	1		Add MODULE entity for SET/DEFINE.		
81	0081	1				
82	0082	1	V001	TMH0001	Tim Halvorsen	18-Jun-1981
83	0083	1		Add CIRCUITS and misc. parameters.		
84	0084	1	--			

```
86 0085 1 %SBTTL 'Definitions'  
87 0086 1  
88 0087 1  
89 0088 1 | INCLUDE FILES:  
90 0089 1 |  
91 0090 1  
92 0091 1 LIBRARY 'LIBS:NMALIBRY';  
93 0092 1 LIBRARY 'LIBS:NCPLIBRY';  
94 0093 1 LIBRARY 'SYSSLIBRARY:TPAMAC';  
95 0094 1  
96 0095 1 | OWN STORAGE:  
97 0096 1 |  
98 0097 1 |  
99 0098 1  
100 0099 1 GLOBAL  
101 0100 1  
102 0101 1 NCPSGL_OPTION, : Place to build option  
103 0102 1 NCPSGL_FNC_CODE. : Place to build function code  
104 0103 1  
105 0104 1 ACTSGL_ACC_MASK, : Mask for access parsing  
106 0105 1 ACTSGL_XIDACC_Q, : Flag for access control with Node specification  
107 0106 1 ACTSGL_NO_XAREA_Q, : Flag for no exec area specified.  
108 0107 1  
109 0108 1 |  
110 0109 1 | String descriptors for access parameters  
111 0110 1 |  
112 0111 1 ACTSGQ_ACCUSR_DSC : VECTOR [2], ! User id  
113 0112 1 ACTSGQ_ACCACC_DSC : VECTOR [2], ! Account  
114 0113 1 ACTSGQ_ACCPSW_DSC : VECTOR [2], ! Password  
115 0114 1  
116 0115 1 ACTSGQ_NODEID_DSC : VECTOR [2] ! Node id descriptor  
117 0116 1 :  
118 0117 1
```

120 0118 1  
121 0119 1  
122 0120 1 EXTERNAL REFERENCES:  
123 0121 1  
124 0122 1  
125 0123 1 EXTERNAL ROUTINE  
126 0124 1 ACT\$INV\_COMMAND.  
127 0125 1 ACT\$SAVPRM.  
128 0126 1 ACT\$TMPSTR.  
129 0127 1 ACT\$BLNK\_SIG.  
130 0128 1 ACT\$BLNK\_NSIG.  
131 0129 1 ACT\$ZAPTPDSC.  
132 0130 1 ACT\$PRMPT.  
133 0131 1 ACT\$NUM RNG.  
134 0132 1 ACT\$STR\_LEN.  
135 0133 1 ACT\$NXT\_STATE.  
136 0134 1 ACT\$PMT\_ON.  
137 0135 1 ACT\$PMT\_OFF.  
138 0136 1 ACT\$PMT\_Q.  
139 0137 1 ACT\$CLR[ONG.  
140 0138 1 ACT\$VRB\_EXIT.  
141 0139 1 ACT\$VRB\_TELL.  
142 0140 1 ACT\$VRB\_SETEXEC.  
143 0141 1 ACT\$VRB\_CLEXEC.  
144 0142 1 ACT\$HELP;  
145 0143 1  
146 0144 1  
147 0145 1 External Data  
148 0146 1  
149 0147 1  
150 0148 1 EXTERNAL  
151 0149 1 ACT\$GL\_ADR\_Q.  
152 0150 1 ACT\$GL\_NODAREA.  
153 0151 1 NCPSGL\_QUALPRS.  
154 0152 1 NCPSGL\_NOPARMS;  
155 0153 1  
156 0154 1  
157 0155 1 Error status values  
158 0156 1  
159 0157 1  
160 0158 1 EXTERNAL LITERAL  
161 0159 1 NCPS\_INVVAL.  
162 0160 1 NCPS\_INVKEY  
163 0161 1  
164 0162 1  
: Signal invalid command  
Save a parameter  
Save a temporary string  
Blanks are now significant  
Blanks are not significant  
Clear temporary descriptors  
Prompt for a parameter  
Validate a number  
Validate a string length  
Set vector to next state table  
Enable prompting  
Disable prompting  
Control prompting  
Clear a longword  
Return control to VMS  
Perform tell function  
Set executor node  
Clear executor node  
Print help text  
True for node address, object number  
Node area  
Set when a qualifier is parsed  
Set when an entity does not take parameters  
! Invalid value  
! Invalid keyword

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0163 1
0164 1 :
0165 1 :
0166 1 :
0167 1 :
0168 1 EXTERNAL
0169 1 NCP$G_STTBL_CLPU,
0170 1 NCP$G_KYTBL_CLPU,
0171 1 NCP$G_STTBL_CON,
0172 1 NCP$G_KYTBL_CON,
0173 1 NCP$G_STTBL_DIS,
0174 1 NCP$G_KYTBL_DIS,
0175 1 NCP$G_STTBL_DUM,
0176 1 NCP$G_KYTBL_DUM,
0177 1 NCP$G_STTBL_LIN,
0178 1 NCP$G_KYTBL_LIN,
0179 1 NCP$G_STTBL_CIR,
0180 1 NCP$G_KYTBL_CIR,
0181 1 NCP$G_STTBL_MODCNF,
0182 1 NCP$G_KYTBL_MODCNF,
0183 1 NCP$G_STTBL_MODCNS,
0184 1 NCP$G_KYTBL_MODCNS,
0185 1 NCP$G_STTBL_MODLOA,
0186 1 NCP$G_KYTBL_MODLOA,
0187 1 NCP$G_STTBL_MODLOO,
0188 1 NCP$G_KYTBL_MODLOO,
0189 1 NCP$G_STTBL_MAC,
0190 1 NCP$G_KYTBL_MAC,
0191 1 NCP$G_STTBL_MPR,
0192 1 NCP$G_KYTBL_MPR,
0193 1 NCP$G_STTBL_MPRDTE,
0194 1 NCP$G_KYTBL_MPRDTE,
0195 1 NCP$G_STTBL_MPRGRP,
0196 1 NCP$G_KYTBL_MPRGRP,
0197 1 NCP$G_STTBL_MSE,
0198 1 NCP$G_KYTBL_MSE,
0199 1 NCP$G_STTBL_MTR,
0200 1 NCP$G_KYTBL_MTR,
0201 1 NCP$G_STTBL_MTRPT,
0202 1 NCP$G_KYTBL_MTRPT,
0203 1 NCP$G_STTBL_M9S,
0204 1 NCP$G_KYTBL_M9S,
0205 1 NCP$G_STTBL_LOA,
0206 1 NCP$G_KYTBL_LOA,
0207 1 NCP$G_STTBL_LOG,
0208 1 NCP$G_KYTBL_LOG,
0209 1 NCP$G_STTBL_LOO,
0210 1 NCP$G_KYTBL_LOO,
0211 1 NCP$G_STTBL_NOD,
0212 1 NCP$G_KYTBL_NOD,
0213 1 NCP$G_STTBL_OBJ,
0214 1 NCP$G_KYTBL_OBJ,
0215 1 NCP$G_STTBL_SHL,
0216 1 NCP$G_KYTBL_SHL,
0217 1 NCP$G_STTBL_TRI,
0218 1 NCP$G_KYTBL_TRI,
0219 1 NCP$G_STTBL_ZER,
0220
0221
0222

```

External state tables

! Clear and Purge commands  
! Connect command  
! Disconnect command  
! Dump command  
! Line parameters  
! Circuit parameters  
! Module Configurator parameters  
! Module Console parameters  
! Module Loader parameters  
! Module Looper parameters  
! Module X25-ACCESS parameters  
! Module X25-PROTOCOL parameters  
! Module X25-PROTOCOL DTE parameters  
! Module X25-PROTOCOL GROUP parameters  
! Module X25-SERVER parameters  
! Module X25-TRACE parameters  
! Module X25-TRACE TRACEPOINT parameters  
! Module X29-SERVER parameters  
! Load command  
! Logging parameters  
! Loop command  
! Remote node parameters  
! Object parameters  
! Show and List commands  
! Trigger command  
! Zero command

NCPSTAVRB  
V04-000

Verb Parse States and Data  
Definitions

: 223

0220 1      NCPSG\_KYTBL\_ZER

5 8  
14-Sep-1984 01:41:13      VAX-11 Bliss-32 V4.0-742  
[NCP.SRC]NCPSTAVRB.B32;1

Page (4)

NC  
VO

226 0222 1 %SBTTL 'Parameter blocks'  
227 0223 1  
228 0224 1  
229 0225 1  
230 0226 1  
231 0227 1  
232 P 0228 1 BIND DATA:  
233 P 0229 1  
234 P 0230 1  
235 P 0231 1  
236 P 0232 1 ALL, LITB, 0, .  
237 P 0233 1 XID, TKN,  
238 P 0234 1 KWN, LITB, NMASC\_ENT\_KNO, VRB\_ENT,  
239 P 0235 1  
240 0236 1 )  
241 0237 1  
242 P 0238 1 BUILD\_PBK  
243 P 0239 1  
244 P 0240 1 (ENT,  
245 P 0241 1  
246 P 0242 1 ALI, TKN, . VRB ENT,  
247 P 0243 1 EXE, LITL, 0, VRB ENT,  
248 P 0244 1 CIR, TKN, . VRB ENT,  
249 P 0245 1 LIN, TKN, . VRB ENT,  
250 P 0246 1 NOD, NADR, . VRB ENT,  
251 P 0247 1 OBJ, TKN, . VRB ENT,  
252 P 0248 1  
253 0249 1 )  
254 0250 1  
255 P 0251 1 BUILD\_PBK  
256 P 0252 1  
257 P 0253 1 (LOG,  
258 P 0254 1  
259 P 0255 1 TYPCON, LITB, NMASC\_SNK\_CON, VRB\_ENT,  
260 P 0256 1 TYPFIL, LITB, NMASC\_SNK\_FIL, VRB\_ENT,  
261 P 0257 1 TYPMON, LITB, NMASC\_SNK\_MON, VRB\_ENT,  
262 P 0258 1  
263 0259 1 )  
264 0260 1  
265 P 0261 1 BUILD\_PBK  
266 P 0262 1  
267 P 0263 1 (EVE,  
268 P 0264 1  
269 P 0265 1 ESET, ESET, . VRB\_EVE,  
270 P 0266 1 ECLS, ECLS, . VRB\_EVE,  
271 P 0267 1 EMSK, EMSK, . VRB\_EVE,  
272 P 0268 1 ERNG, ERNG, . VRB\_EVE,  
273 P 0269 1 EWLD, EWLD, . VRB\_EVE,  
274 P 0270 1 ESNO, ESNO, . VRB\_EVE,  
275 P 0271 1 ESLI, ESLI, . VRB\_EVE,  
276 P 0272 1 ESEX, ESEX, . VRB\_EVE,  
277 P 0273 1  
278 0274 1 )

280 0275 1  
281 0276 1 |  
282 0277 1 | Control blocks for ACT\$ZAPTMPDSC  
283 0278 1 |  
284 0279 1 |  
285 0280 1 GLOBAL BIND  
286 0281 1  
287 0282 1 PBK\$G\_ZAPACCDSC = ! Zap descriptors for access control  
288 0283 1 PLIT ( |  
289 0284 1 ACT\$GQ\_ACCUSR\_DSC.  
290 0285 1 ACT\$GQ\_ACCACC\_DSC.  
291 0286 1 ACT\$GQ\_ACCPSW\_DSC  
292 0287 1 )  
293 0288 1 ;

```
295 0289 1 %SBTTL 'Prompt Strings'  
296 0290 1 :  
297 0291 1 :  
298 0292 1 : Prompt Strings  
299 0293 1 :  
300 0294 1 :  
301 0295 1 BIND  
302 P 0296 1 PROMPT_STRINGS  
303 P 0297 1 (ENT,  
304 P 0298 1 :  
305 P 0299 1 CIR, 'Circuit ID string (16 characters): ',  
306 P 0300 1 LIN, 'Line ID (dev-c-u.t): ',  
307 P 0301 1 LOG, 'Type of logging (CONSOLE, FILE, MONITOR): ',  
308 P 0302 1 KWN, '((CIRCUITS, LINES, LOGGING, NODES, OBJECTS): ',  
309 P 0303 1 NOD, 'Node ID (node-name, address): ',  
310 P 0304 1 OBJ, 'Object name (12 characters): ',  
311 P 0305 1 MOD, %STRING('Module (X25-ACCESS, X25-PROTOCOL, X25-SERVER,', CRLF,  
312 P 0306 1 : X25-TRACE, X29-SERVER): ',  
313 L 0307 1 MOD, %STRING('Module (CONFIGURATOR, CONSOLE, LOADER,', CRLF,  
314 L 0308 1 : LOOPER, X25-ACCESS, X25-PROTOCOL,', CRLF,  
315 P 0309 1 : X25-SERVER, X25-TRACE, X29-SERVER): ',  
316 P 0310 1 :  
317 0311 1 :  
318 0312 1 :  
319 P 0313 1 PROMPT_STRINGS  
320 P 0314 1 (VRB,  
321 P 0315 1 :  
322 P 0316 1 XID, 'Executor node ID (node-name, address): ',  
323 P 0317 1 TELL, 'Executor node ID (node-name, address): ',  
324 P 0318 1 :  
325 P 0319 1 SDF1, %STRING(  
326 L 0320 1 : '(CIRCUIT, EXECUTOR, KNOWN, LINE,', CRLF,  
327 L 0321 1 : LOGGING, MODULE, NODE, OBJECT): ',  
328 P 0322 1 :  
329 P 0323 1 :  
330 L 0324 1 VRB, %STRING(  
331 L 0325 1 : '(SET, DEFINE, CONNECT, DISCONNECT, CLEAR, PURGE,', CRLF,  
332 P 0326 1 : SHOW, LIST, DUMP, LOAD, TRIGGER, LOOP, ZERO): ',  
333 P 0327 1 :  
334 0328 2 :  
335 P 0329 1 :  
:
```

337 0330 1 XSBTTL 'Root of the state table'  
338 0331 1  
339 0332 1 \$INIT\_STATE (NCP\$G\_STATE\_TBL, NCP\$G\_KEY\_TBL);  
340 0333 1  
341 0334 1  
342 0335 1 ! Allow TELL or a VERB here or EOS  
343 0336 1 !  
344 0337 1 !  
P 0338 1 \$STATE (ST\_CMD,  
P 0339 1 (TPAS\_LAMBDA, , ACT\$CLRLONG, , , NCP\$GL\_OPTION)  
P 0340 1 );  
P 0341 1  
P 0342 1 \$STATE {  
P 0343 1 (fPAS\_LAMBDA, , ACT\$CLRLONG, , , NCP\$GL\_FNC\_CODE)  
P 0344 1 );  
P 0345 1  
P 0346 1 \$STATE {  
P 0347 1 (fPAS\_LAMBDA, , ACT\$CLRLONG, , , NCP\$GL\_QUALPRS)  
P 0348 1 );  
P 0349 1  
P 0350 1 \$STATE {  
P 0351 1 (fPAS\_LAMBDA, , ACT\$CLRLONG, , , NCP\$GL\_NOPARMS)  
P 0352 1 );  
P 0353 1  
P 0354 1 \$STATE {  
P 0355 1 ('CLEAR', ST\_VRB\_CLE),  
P 0356 1 ('EXIT', TPAS\_EXIT, ACT\$VRB\_EXIT),  
P 0357 1 ('HELP', ST\_HELP),  
P 0358 1 ('SET', ST\_VRB\_EXN),  
P 0359 1 ('TELL', ST\_VRB\_TELL),  
P 0360 1 (TPAS\_EOS, TPAS\_EXIT),  
P 0361 1 (TPAS\_LAMBDA, ST\_VRB\_VRB)  
P 0362 1 );  
P 0363 1  
P 0364 1 !  
P 0365 1 ! For TELL require a node-id next  
P 0366 1 !  
P 0367 1 !  
P 0368 1 COMMAND\_PROMPT  
P 0369 1 (VRB, TELL, NCPS\_INVAL,  
P 0370 1 ( (SE\_NODE\_SPEC), , ACT\$SAVPRM, , , PBK\$G\_VRB\_XID)  
P 0371 1 )  
P 0372 1 )  
P 0373 1 !  
P 0374 1 !  
P 0375 1 ! And optional access information next  
P 0376 1 !  
P 0377 1 !  
P 0378 1 \$STATE {  
P 0379 1 ( (SE\_ACCESS) ),  
P 0380 1 (TPAS\_LAMBDA)  
P 0381 1 );  
P 0382 1 !  
P 0383 1 \$STATE {  
P 0384 1 (fPAS\_LAMBDA, ST\_VRB\_VRB, ACT\$VRB\_TELL) ! Dummy state to provide action  
P 0385 1 );  
P 0386 1 );

```
: 395 0387 1
: 396 0388 1
: 397 0389 1 | Decode and perform Help command
: 398 0390 1 |
: 399 0391 1
: 400 0392 1
: 401 0393 1 | Call the help action routine.
: 402 0394 1 |
: 403 0395 1
: 404 P 0396 1 $STATE (ST_HELP,
: 405 P 0397 1 (TPA$_LAMBDA, TPA$_EXIT, ACT$HELP) ! Call the action routine
: 406 0398 1 );
```

```
: 408 0399 1 %SBTTL 'Decode verbs'  
: 409 0400 1  
: 410 0401 1  
: 411 0402 1 | Verb decoding states  
: 412 0403 1 |  
: 413 0404 1 |  
: 414 P 0405 1 | COMMAND PROMPT  
: 415 P 0406 1 | (VRB, VRB, NCPS_INVKEY,  
: 416 P 0407 1 |  
: 417 P 0408 1 | ('CLEAR', ST_VRB(CLPU),  
: 418 P 0409 1 | ('CONNECT', ST_VRB(CON),  
: 419 P 0410 1 | ('DEFINE', ST_VRB(SDF), NMASM_OPT_PER, NCPSGL_OPTION, ),  
: 420 P 0411 1 | ('DISCONNECT', ST_VRB(DIS),  
: 421 P 0412 1 | ('DUMP', ST_VRB(DUM),  
: 422 P 0413 1 | ('LIST', ST_VRB(SHL), NMASM_OPT_PER, NCPSGL_OPTION, ),  
: 423 P 0414 1 | ('LOAD', ST_VRB(LOAD), NMASM_OPT_PER, NCPSGL_OPTION, ),  
: 424 P 0415 1 | ('LOOP', ST_VRB(LOO),  
: 425 P 0416 1 | ('PURGE', ST_VRB(CLPU), NMASM_OPT_PER, NCPSGL_OPTION, ),  
: 426 P 0417 1 | ('SET', ST_VRB(SDF),  
: 427 P 0418 1 | ('SHOW', ST_VRB(SHL),  
: 428 P 0419 1 | ('TRIGGER', ST_VRB(TRI),  
: 429 P 0420 1 | ('ZERO', ST_VRB(ZER),  
: 430 P 0421 1 | (TPAS_SYMBOL, TPAS_EXIT, ACTSINV_COMMAND)  
: 431 0422 1 )
```

```

433 0423 1 %SBTTL 'Set and Define Verbs'
434 0424 1
435 0425 1
436 0426 1
437 0427 1
438 0428 1
439 P 0429 1 $STATE (ST_VRB_SDF,
440 P 0430 1 (TPAS_LAMBDA, ., NMASC_FNC_CHA, NCP$GL_FNC_CODE)
441 P 0431 1 );
442 P 0432 1
443 P 0433 1 COMMAND PROMPT
444 P 0434 1 (VRB, SDF1, NCPS_INVKEY,
445 P 0435 1
446 P 0436 1 ('CIRCUIT', ST_ENT_CIR),
447 P 0437 1 ('CONFIGURATOR', ST_ENT_CNF),
448 P 0438 1 ('CONSOLE', ST_ENT_CNS),
449 P 0439 1 ('DTE', ST_ENT_MPRDTE),
450 P 0440 1 ('EXECUTOR', ST_ENT_EXE),
451 P 0441 1 ('GROUP', ST_ENT_MPRGGRP),
452 P 0442 1 ('KNOWN', ST_ENT_KWN),
453 P 0443 1 ('LINE', ST_ENT_LIN),
454 P 0444 1 ('LOADER', ST_ENT_LOA),
455 P 0445 1 ('LOGGING', ST_ENT_LOG),
456 P 0446 1 ('LOOPER', ST_ENT_L00),
457 P 0447 1 ('MODULE', ST_ENT_MOD),
458 P 0448 1 ('NODE', ST_ENT_NOD),
459 P 0449 1 ('OBJECT', ST_ENT_OBJ),
460 P 0450 1 ('TRACEPOINT', ST_ENT_MTRPT),
461 P 0451 1 ('X25', ST_ENT_X25),
462 P 0452 1 ('X29', ST_ENT_X29),
463 P 0453 1 )
464 P 0454 1
465 P 0455 1 $STATE (ST_VRB_EXN, ! SET as first VERB
466 P 0456 1 ('EXECUTOR'),
467 P 0457 1 (TPAS_LAMBDA, ST_VRB_SDF)
468 P 0458 1 );
469 P 0459 1
470 P 0460 1 $STATE (! EXECUTOR NODE?
471 P 0461 1 ('NODE'),
472 P 0462 1 (TPAS_LAMBDA, ST_ENT_EXE, ., NMASC_FNC_CHA, NCP$GL_FNC_CODE, )
473 P 0463 1 ! No, use normal SET EXECUTOR
474 P 0464 1
475 P 0465 1 COMMAND PROMPT
476 P 0466 1 (VRB, XID, NCPS_INVVAL,
477 P 0467 1
478 P 0468 1 ( (SE_NODE_SPEC), ., ACT$SAVPRM, ., PBKSG_VRB_XID)
479 P 0469 1
480 P 0470 1 )
481 P 0471 1
482 P 0472 1 $STATE (! And optional access control
483 P 0473 1 ( (SE_ACCESS) ),
484 P 0474 1 (TPAS_LAMBDA)
485 P 0475 1 );
486 P 0476 1
487 P 0477 1 $STATE (! Dummy state to perform action
488 P 0478 1 (TPAS_EOS, TPAS_EXIT, ACTSVRB_SETEXEC)
489 P 0479 1 );

```

```
: 491 0480 1 %SBTTL 'Set / Define Processing'  
: 492 0481 1  
: 493 0482 1  
: 494 0483 1 : Set / Define Processing  
: 495 0484 1 :  
: 496 0485 1 :  
: 497 0486 1 :  
: 498 0487 1 : Executor node  
: 499 0488 1 :  
: 500 0489 1 :  
: 501 P 0490 1 $STATE (ST_ENT_EXE,  
: 502 P 0491 1 (TPAS_LAMBDA, , ACTSSAVPRM, NMASC_ENT_NOD,  
: 503 P 0492 1 NCPSGL_OPTION, PBKSG_ENT_EXE)  
: 504 P 0493 1 );  
: 505 P 0494 1  
: 506 P 0495 1 $STATE (  
: 507 P 0496 1 (TPAS_LAMBDA, TPAS_EXIT, ACTSNXT_STATE, , , NEXT_STATE (NOD) )  
: 508 P 0497 1 );  
: 509 P 0498 1  
: 510 P 0499 1 :  
: 511 P 0500 1 : Circuits  
: 512 P 0501 1 :  
: 513 P 0502 1 :  
: 514 P 0503 1 : COMMAND PROMPT  
: 515 P 0504 1 (ENT, CIR, NCPS_INVAL,  
: 516 P 0505 1 ( (SE_CIRC_ID), , ACTSSAVPRM, NMASC_ENT_CIR,  
: 517 P 0506 1 NCPSGL_OPTION, PBKSG_ENT_CIR)  
: 518 P 0507 1  
: 519 P 0508 1 )  
: 520 P 0509 1  
: 521 P 0510 1 $STATE (ST_KWN_CIR,  
: 522 P 0511 1 (TPAS_LAMBDA, TPAS_EXIT, ACTSNXT_STATE, , , NEXT_STATE (CIR) )  
: 523 P 0512 1 );  
: 524 P 0513 1  
: 525 P 0514 1 :  
: 526 P 0515 1 : Lines  
: 527 P 0516 1 :  
: 528 P 0517 1 :  
: 529 P 0518 1 : COMMAND PROMPT  
: 530 P 0519 1 (ENT, LIN, NCPS_INVAL,  
: 531 P 0520 1 ( (SE_LINE_ID), , ACTSSAVPRM, NMASC_ENT_LIN,  
: 532 P 0521 1 NCPSGL_OPTION, PBKSG_ENT_LIN)  
: 533 P 0522 1  
: 534 P 0523 1 )  
: 535 P 0524 1  
: 536 P 0525 1 $STATE (ST_KWN_LIN,  
: 537 P 0526 1 (TPAS_LAMBDA, TPAS_EXIT, ACTSNXT_STATE, , , NEXT_STATE (LIN) )  
: 538 P 0527 1 );  
: 539 P 0528 1  
: 540 P 0529 1 :  
: 541 P 0530 1 : Modules  
: 542 P 0531 1 :  
: 543 P 0532 1 :  
: 544 P 0533 1 : COMMAND PROMPT  
: 545 P 0534 1 (ENT, MOD, NCPS_INVAL,  
: 546 P 0535 1 ('CONFIGURATOR', ST_ENT_CNF),  
: 547 P 0536 1
```

548 P 0537 1 ('CONSOLE', ST\_ENT\_CNS),  
549 P 0538 1 ('LOADER', ST\_ENT\_LOA),  
550 P 0539 1 ('LOOPER', ST\_ENT\_L00),  
551 P 0540 1 ('X25', ST\_ENT\_X25),  
552 P 0541 1 ('X29', ST\_ENT\_X29),  
553 0542 1 )  
554 0543 1  
555 P 0544 1 \$STATE (ST\_ENT\_X25,  
556 0545 1 ('-?));  
557 P 0546 1 \$STATE (,  
558 P 0547 1 ('ACCESS', ST\_ENT\_MAC),  
559 P 0548 1 ('PROTOCOL', ST\_ENT\_MPR),  
560 P 0549 1 ('SERVER', ST\_ENT\_MSE),  
561 P 0550 1 ('TRACE', ST\_ENT\_MTR),  
562 0551 1 );  
563 0552 1  
564 P 0553 1 \$STATE (ST\_ENT\_X29,  
565 0554 1 ('-?));  
566 P 0555 1 \$STATE (,  
567 P 0556 1 ('SERVER', ST\_ENT\_M9S)  
568 0557 1 );

570 P 0558 1 \$STATE (ST ENT CNF, ! MODULE CONFIGURATOR  
571 P 0559 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
572 P 0560 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MODCNF))  
573 P 0561 1 );  
574 P 0562 1  
575 P 0563 1 \$STATE (ST ENT CNS, ! MODULE CONSOLE  
576 P 0564 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
577 P 0565 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MODCNS))  
578 P 0566 1 );  
579 P 0567 1  
580 P 0568 1 \$STATE (ST ENT LOA, ! MODULE LOADER  
581 P 0569 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
582 P 0570 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MODLOA))  
583 P 0571 1 );  
584 P 0572 1  
585 P 0573 1 \$STATE (ST ENT LOO, ! MODULE LOOPER  
586 P 0574 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
587 P 0575 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MODLOO))  
588 P 0576 1 );  
589 P 0577 1  
590 P 0578 1 \$STATE (ST ENT MAC, ! MODULE X25-ACCESS  
591 P 0579 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
592 P 0580 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MAC))  
593 P 0581 1 );  
594 P 0582 1  
595 P 0583 1 \$STATE (ST ENT MPR, ! MODULE X25-PROTOCOL  
596 P 0584 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
597 P 0585 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MPR))  
598 P 0586 1 );  
599 P 0587 1 \$STATE (ST ENT MPRDTE, ! MODULE X25-PROTOCOL DTE  
600 P 0588 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
601 P 0589 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MPRDTE))  
602 P 0590 1 );  
603 P 0591 1 \$STATE (ST ENT MPRGRP, ! MODULE X25-PROTOCOL GROUP  
604 P 0592 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
605 P 0593 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MPRGRP))  
606 P 0594 1 );  
607 P 0595 1  
608 P 0596 1 \$STATE (ST ENT MSE, ! MODULE X25-SERVER  
609 P 0597 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
610 P 0598 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MSE))  
611 P 0599 1 );  
612 P 0600 1  
613 P 0601 1 \$STATE (ST ENT MTR, ! MODULE X25-TRACE  
614 P 0602 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
615 P 0603 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MTR))  
616 P 0604 1 );  
617 P 0605 1 \$STATE (ST ENT MTRPT, ! MODULE X25-TRACE TRACEPOINT  
618 P 0606 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
619 P 0607 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(MTRPT))  
620 P 0608 1 );  
621 P 0609 1  
622 P 0610 1 \$STATE (ST ENT M9S, ! MODULE X29-SERVER  
623 P 0611 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE,  
624 P 0612 1 NMASC\_ENT\_MOD, NCPGSL\_OPTION, NEXT\_STATE(M9S))  
625 P 0613 1 );  
626 P 0614 1

```
: 628      0615 1
: 629      0616 1
: 630      0617 1
: 631      0618 1
: 632      0619 1
: 633      P 0620 1 Known Entities
: 634      P 0621 1 COMMAND PROMPT
: 635      P 0622 1 (ENT, KWN, NCPS_INVKEY,
: 636      P 0623 1 ('CIRCUITS', ST_KWN_CIR, ACT$SAVPRM, NMASC_ENT_CIR,
: 637      P 0624 1 NCPSGL_OPTION, PBRSG_VRB_KWN),
: 638      P 0625 1 ('LINES', ST_KWN_LIN, ACT$SAVPRM, NMASC_ENT_LIN,
: 639      P 0626 1 NCPSGL_OPTION, PBRSG_VRB_KWN),
: 640      P 0627 1 ('LOGGING', ST_KWN_LOG, ACT$SAVPRM, NMASC_ENT_LOG,
: 641      P 0628 1 NCPSGL_OPTION, PBRSG_VRB_KWN),
: 642      P 0629 1 ('NODES', ST_KWN_NOD, ACT$SAVPRM, NMASC_ENT_NOD,
: 643      P 0630 1 NCPSGL_OPTION, PBRSG_VRB_KWN),
: 644      P 0631 1 ('OBJECTS', ST_KWN_OBJ, ACT$SAVPRM, NMASC_ENT_OBJ,
: 645      P 0632 1 NCPSGL_OPTION, PBKSG_VRB_KWN),
: 646      P 0633 1 )
: 647      0634 1
: 648      0635 1
: 649      0636 1
: 650      0637 1 Logging
: 651      0638 1
: 652      0639 1
: 653      P 0640 1 COMMAND PROMPT
: 654      P 0641 1 (ENT, LOG, NCPS_INVKEY,
: 655      P 0642 1 ( (SE_LOG_TYP) , , NMASC_ENT_LOG, NCPSGL_OPTION)
: 656      P 0643 1
: 657      P 0644 1 )
: 658      0645 1
: 659      0646 1
: 660      P 0647 1 $STATE (ST_KWN_LOG,
: 661      P 0648 1 (TPAS_LAMBDA, TPAS_EXIT, ACT$NXT_STATE, . . . , NEXT_STATE (LOG) )
: 662      0649 1 );
```

```
664      0650 1
665      0651 1
666      0652 1
667      0653 1
668      0654 1
669      P 0655 1      Nodes
670      P 0656 1      COMMAND PROMPT
671      P 0657 1      (ENT, NOD, NCPS_INVVAL,
672      P 0658 1      ( (SE_NODE_ID), , ACT$SAVPRM, NMASC_ENT_NOD,
673      P 0659 1      NCPSGL_OPTION, PBK$G_ENT_NOD)
674      P 0660 1
675      0661 1
676      0662 1
677      P 0663 1 SSTATE (ST_KWN_NOD,
678      P 0664 1      (TPAS_LAMBDA, TPAS_EXIT, ACTSNXT_STATE, , , NEXT_STATE (NOD) )
679      0665 1
680      0666 1
681      0667 1
682      0668 1
683      0669 1
684      0670 1
685      P 0671 1      Objects
686      P 0672 1      COMMAND PROMPT
687      P 0673 1      (ENT, OBJ, NCPS_INVVAL,
688      P 0674 1      ( (SE_OBJECT_ID), , ACT$SAVPRM, NMASC_SENT_OBJ,
689      P 0675 1      NCPSGE_OPTION, PBK$G_ENT_OBJ)
690      P 0676 1
691      0677 1
692      0678 1
693      P 0679 1 SSTATE (ST_KWN_OBJ,
694      P 0680 1      (TPAS_LAMBDA, TPAS_EXIT, ACTSNXT_STATE, , , NEXT_STATE (OBJ) )
695      0681 1
696      0682 1
```

```
: 698      0683 1 %SBTTL 'Clear/Purge Dispatching'  
: 699      0684 1  
: 700      0685 1  
: 701      0686 1 ! Dispatching for Clear and Purge  
: 702      0687 1  
: 703      0688 1  
: 704      0689 1  
: 705      0690 1 ! CLEAR EXECUTOR NODE  
: 706      0691 1  
: 707      0692 1  
: 708      P 0693 1 $STATE (ST_VRB_CLE,  
: 709      P 0694 1      ( (SE_VRB_CLEX) ),  
: 710      P 0695 1      (TPAS_LAMBDA, ST_VRB_CLPU)      ! Is this clear executor node?  
: 711      0696 1      );  
: 712      0697 1  
: 713      P 0698 1 $STATE (, ! Perform the clear executor node  
: 714      P 0699 1      (TPAS_EOS, TPAS_EXIT, ACT$VRB_CLEXEC)  
: 715      0700 1      );  
: 716      0701 1  
: 717      P 0702 1 $STATE (SE_VRB_CLEX,  
: 718      P 0703 1      ('EXECUTOR')      ! Succeed if executor node  
: 719      0704 1      );  
: 720      0705 1  
: 721      P 0706 1 $STATE (,  
: 722      P 0707 1      ('NODE', TPAS_EXIT)  
: 723      0708 1      );  
: 724      0709 1  
: 725      0710 1  
: 726      0711 1 ! Clear and Purge dispatch to another state table  
: 727      0712 1  
: 728      0713 1  
: 729      P 0714 1 $STATE (ST_VRB_CLPU,  
: 730      P 0715 1      (TPAS_LAMBDA, ., NMASM_OPT_CLE, NCP$GL_OPTION)  
: 731      0716 1      );  
: 732      0717 1  
: 733      P 0718 1 $STATE (,  
: 734      P 0719 1      (TPAS_LAMBDA, TPAS_EXIT, ACTSNXT_STATE, NMASC_FNC_CHA,  
: 735      P 0720 1      NCP$GL_FNC_CODE, NEXT_STATE(CLPU) )  
: 736      0721 1  
: 737      0722 1      );
```

739 0723 1 %SBTTL 'Connect Verb'  
740 0724 1  
741 0725 1  
742 0726 1 | Connect Verb  
743 0727 1 |  
744 0728 1 |  
745 P 0729 1 \$STATE (ST\_VRB\_CON,  
746 P 0730 1 (TPAS\_LAMBDA, ., NMASH\_OPT\_CLE, NCPSGL\_OPTION)  
747 P 0731 1 );  
748 P 0732 1 |  
749 P 0733 1 | \$STATE (,  
750 P 0734 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE, NMASC\_FNC\_SYS,  
751 P 0735 1 NCPSGL\_FNC\_CODE, NEXT\_STATE (CON) )  
752 0736 1 );  
753 0737 1  
754 0738 1  
755 0739 1 %SBTTL 'Disconnect Verb'  
756 0740 1  
757 0741 1 |  
758 0742 1 | Disconnect Verb  
759 0743 1 |  
760 0744 1 |  
7 P 0745 1 \$STATE (ST\_VRB\_DIS,  
762 P 0746 1 (TPAS\_LAMBDA, ., NMASH\_OPT\_CLE, NCPSGL\_OPTION)  
763 0747 1 );  
764 0748 1  
765 P 0749 1 \$STATE (,  
766 P 0750 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE, NMASC\_FNC\_CHA,  
767 P 0751 1 NCPSGL\_FNC\_CODE, NEXT\_STATE (DIS) )  
768 0752 1 );  
769 0753 1  
770 0754 1 %SBTTL 'Dump Verb'  
771 0755 1  
772 0756 1 |  
773 0757 1 | Dump Verb  
774 0758 1 |  
775 0759 1 |  
776 P 0760 1 \$STATE (ST\_VRB\_DUM,  
777 P 0761 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE, NMASC\_FNC\_DUM,  
778 P 0762 1 NCPSGL\_FNC\_CODE, NEXT\_STATE (DUM) )  
779 0763 1 );  
780 0764 1  
781 0765 1 %SBTTL 'Load Verb'  
782 0766 1  
783 0767 1 |  
784 0768 1 | Load Verb  
785 0769 1 |  
786 0770 1 |  
787 P 0771 1 \$STATE (ST\_VRB\_LOA,  
788 P 0772 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT STATE, NMASC\_FNC\_LOA,  
789 P 0773 1 NCPSGL\_FNC\_CODE, NEXT\_STATE (LOA) )  
790 0774 1 );  
791 0775 1  
792 0776 1  
793 0777 1 %SBTTL 'Loop Verb'  
794 0778 1  
795 0779 1 |

796 0780 1 | Loop Verb  
797 0781 1 |  
798 0782 1 |  
799 P 0783 1 \$STATE (ST\_VRB\_L00,  
800 P 0784 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT\_STATE, NMASC\_FNC\_TES,  
801 P 0785 1 NCP\$GL\_FNC\_CODE, NEXT\_STATE (L00) )  
802 0786 1 );

804 0787 1 XSBTTL 'Show / List Verbs'  
805 0788 1  
806 0789 1  
807 0790 1  
808 0791 1  
809 0792 1  
810 P 0793 1 SSTATE (ST\_VRB\_SHL  
811 P 0794 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT\_STATE, NMASC\_FNC\_REA,  
812 P 0795 1 NCPSGL\_FNC\_CODE, NEXT\_STATE (SHL) ),  
813 0796 1 );  
814 0797 1  
815 0798 1  
816 0799 1 XSBTTL 'Trigger Verb'  
817 0800 1  
818 0801 1  
819 0802 1  
820 0803 1  
821 0804 1  
822 P 0805 1 SSTATE (ST\_VRB\_TRI  
823 P 0806 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT\_STATE, NMASC\_FNC\_TRI,  
824 P 0807 1 NCPSGL\_FNC\_CODE, NEXT\_STATE (TRI) )  
825 0808 1 );  
826 0809 1  
827 0810 1  
828 0811 1 XSBTTL 'Zero Verb'  
829 0812 1  
830 0813 1  
831 0814 1  
832 0815 1  
833 0816 1  
834 P 0817 1 SSTATE (ST\_VRB\_ZER  
835 P 0818 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACTSNXT\_STATE, NMASC\_FNC\_ZER,  
836 P 0819 1 NCPSGL\_FNC\_CODE, NEXT\_STATE (ZER) )  
837 0820 1 );

839 0821 1 %SBTTL 'Define Subexpressions'  
840 0822 1  
841 0823 1  
842 0824 1 | Subexpression to decode a node specification  
843 0825 1 |  
844 0826 1  
845 P 0827 1 \$STATE (SE\_NODE\_SPEC,  
846 P 0828 1 ( (SE\_NODE\_SPEC), ACT\$STRLEN, ACT\$BLNKLENFILE\_SPEC),  
847 P 0829 1 (TPAS\_LAMBDA, TPAS\_FAIL, ACT\$BLNK\_NSIG)  
848 0830 1 );  
849 0831 1  
850 P 0832 1 \$STATE ( (':'),  
851 P 0833 1 (TPAS\_LAMBDA, TPAS\_EXIT, ACT\$BLNK\_NSIG)  
852 0834 1 );  
853 0835 1  
854 0836 1  
855 P 0837 1 \$STATE ( (':', TPAS\_EXIT, ACT\$BLNK\_NSIG),  
856 P 0838 1 (TPAS\_LAMBDA, TPAS\_FAIL, ACT\$BLNK\_NSIG)  
857 P 0839 1 );  
858 0840 1

```

860      0841 1
861      0842 1
862      0843 1 ! Decode the specification string
863      0844 1
864      0845 1
865      P 0846 1 $STATE (SE_NOD_SPC,
866      P 0847 1      ('(SE_NOD_AREA_Q), ., ACTSCLRLONG, ., ACTSGL_XIDACC_Q), ! Symbol for the node name
867      P 0848 1      ! If an area is present then the '.' was rej
868      P 0849 1      so check for it here
869      P 0850 1      ((SE_NOD_ADRS), ., ACTSCLRLONG, ., ACTSGL_XIDACC_Q), ! Flag node address without area.
870      P 0851 1      (TPAS_SYMBOL, ., ACTSCLRLONG, ., ACTSGL_XIDACC_Q), ! To allow logical names
871      P 0852 1      );
872      P 0853 1
873      P 0854 1 $STATE (
874      P 0855 1      ('...', ACTSBLNK_SIG), ! Access control may follow
875      P 0856 1      (TPAS_LAMBDA, TPAS_EXIT) ! Or not
876      P 0857 1      );
877      P 0858 1
878      P 0859 1 $STATE (,
879      P 0860 1      ('.', (SE_SPC_STR), ., TRUE, ACTSGL_XIDACC_Q), ! If access control,
880      P 0861 1      ('.', TPAS_EXIT, ., TRUE, ACTSGL_XIDACC_Q), ! Get the string or
881      P 0862 1      ! Allow null accctl
882      P 0863 1      );
883      P 0864 1 $STATE (
884      P 0865 1      (TPAS_BLANK), ! Blank after string or
885      P 0866 1      ('.', TPAS_EXIT) ! End it
886      P 0867 1      );
887      P 0868 1
888      P 0869 1 $STATE (,
889      P 0870 1      ('(SE_SPC_STR) ) ! Password string
890      P 0871 1      );
891      P 0872 1
892      P 0873 1 $STATE (
893      P 0874 1      (TPAS_BLANK), ! And blank or end
894      P 0875 1      ('.', TPAS_EXIT)
895      P 0876 1      );
896      P 0877 1
897      P 0878 1 $STATE (,
898      P 0879 1      ('(SE_SPC_STR) ) ! Account string
899      P 0880 1      );
900      P 0881 1
901      P 0882 1 $STATE (
902      P 0883 1      ('.', TPAS_EXIT) ! And end it here or fail
903      P 0884 1      );

```

```
: 905      0885 1
: 906      0886 1 |
: 907      0887 1 | Decode a string acceptable for access control in a node spec
: 908      0888 1 |
: 909      0889 1
: 910      0890 1
: 911      P 0891 1 $STATE (SF_SPC_STR,
: 912      P 0892 1      ( (SE_SPC_CHR) )
: 913      P 0893 1      );
: 914      P 0894 1
: 915      P 0895 1 $STATE (SE_SPC_STR1,
: 916      P 0896 1      ( (SE_SPC_CHR), SE_SPC_STR1),
: 917      P 0897 1      (TPAS_LAMBDA, TPAS_EXIT)
: 918      P 0898 1      );
: 919      P 0899 1
: 920      P 0900 1 $STATE (SE_SPC_CHR,
: 921      P 0901 1      (",", TPAS_FAIL),
: 922      P 0902 1      (TPAS_BLANK, TPAS_FAIL),
: 923      P 0903 1      (TPAS_ANY, TPAS_EXIT)
: 924      P 0904 1      );
```

```
926 0905 1
927 0906 1
928 0907 1 | Obtain access control in the more general case
929 0908 1 |
930 0909 1
931 P 0910 1 $STATE (SE_ACCESS,
932 P 0911 1 (TPAS_LAMBDA, , ACT$ZAPTMPDSC, , , PBKSG_ZAPACCDSC)
933 0912 1 );
934 0913 1
935 P 0914 1 $STATE (
936 P 0915 1 ('ACCOUNT', ST_ACCESS_ACC), ! Take any one first but there must be
937 P 0916 1 ('PASSWORD', ST_ACCESS_PSW),
938 P 0917 1 ('USER', ST_ACCESS_USR)
939 0918 1 );
940 0919 1
941 P 0920 1 $STATE (ST_ACCESS_1,
942 P 0921 1 ('ACCOUNT', ST_ACCESS_ACC), ! Now there can be any remaining
943 P 0922 1 ('PASSWORD', ST_ACCESS_PSW),
944 P 0923 1 ('USER', ST_ACCESS_USR),
945 P 0924 1 (TPAS_LAMBDA, TPAS_EXIT)
946 0925 1 );
947 0926 1
948 P 0927 1 $STATE (ST_ACCESS_ACC, ! State for an account string
949 P 0928 1 ((SE_ACCESS_ACC), ST_ACCESS_1),
950 P 0929 1 (TPAS_LAMBDA, TPAS_FAIL, ACT$INV_COMMAND)
951 0930 1 );
952 0931 1
953 P 0932 1 $STATE (SE_ACCESS_ACC, ! Subexpression for an account string
954 P 0933 1 ((SE_ACC_ACC), TPAS_EXIT, ACT$TMPSTR, , ACT$GQ_ACCACC_DSC)
955 0934 1 );
956 P 0935 1 $STATE (ST_ACCESS_PSW, ! State for a password string
957 P 0936 1 ((SE_ACCESS_PSW), ST_ACCESS_1),
958 P 0937 1 (TPAS_LAMBDA, TPAS_FAIL, ACT$INV_COMMAND)
959 0938 1 );
960 0939 1
961 P 0940 1 $STATE (SE_ACCESS_PSW, ! Subexpression for a password string
962 P 0941 1 ((SE_ACC_PSW), TPAS_EXIT, ACT$TMPSTR, , ACT$GQ_ACCPSW_DSC)
963 0942 1 );
964 0943 1
965 P 0944 1 $STATE (ST_ACCESS_USR, ! State for a user id string
966 P 0945 1 ((SE_ACCESS_USR), ST_ACCESS_1),
967 P 0946 1 (TPAS_LAMBDA, TPAS_FAIL, ACT$INV_COMMAND)
968 0947 1 );
969 0948 1
970 P 0949 1 $STATE (SE_ACCESS_USR, ! Subexpression for a user id string
971 P 0950 1 ((SE_ACC_USR), TPAS_EXIT, ACT$TMPSTR, , ACT$GQ_ACCUSR_DSC)
972 0951 1 );
```

```

974      0952 1 |
975      0953 1 | See if the node address has an area in front.
976      0954 1 | Format is area.adr, where area and adr are decimal.
977      0955 1 |
978      P 0956 1 $STATE (SE_NOD_AREA_Q,
979      P 0957 1 | (TPAS_DECIMAE)
980      0958 1 |
981      0959 1 |
982      P 0960 1 $STATE (
983      P 0961 1 | (', , ACTSNUM RNG,
984      P 0962 1 | NUM RANGE (LOW_AREA, HIGH_AREA)),
985      P 0963 1 | (TPAS_LAMBDA, TPAS_FAIE)
986      0964 1 |
987      0965 1 |
988      P 0966 1 $STATE (
989      P 0967 1 | (TPAS_DECIMAL, TPAS_EXIT, ACTSNUM RNG,
990      P 0968 1 | NUM_RANGE (LOW_NODEADR, HIGH_NODEADR)) ! Check the range of the node address
991      0969 1 |
992      0970 1 |
993      0971 1 |
994      0972 1 | If area test failed, but there is a valid node address,
995      0973 1 | then accept the node address and set a flag so that
996      0974 1 | ACTSSAVPRM will set the area to 1 if it's a TELL or
997      0975 1 | SET EXEC command.
998      0976 1 |
999      P 0977 1 $STATE (SE_NOD_ADDRS,
1000     P 0978 1 | (TPAS_LAMBDA, , ACT$CLRLONG, , ACT$GL_NO_XAREA_Q) ! Start with the flag clear.
1001     0979 1 |
1002     0980 1 |
1003     P 0981 1 $STATE (
1004     P 0982 1 | (TPAS_DECIMAL, ACTSNUM RNG,
1005     P 0983 1 | NUM_RANGE (LOW_NODEADR, HIGH_NODEADR)) ! Check the range of the node address.
1006     0984 1 |
1007     0985 1 |
1008     P 0986 1 $STATE (
1009     P 0987 1 | (TPAS_LAMBDA, TPAS_EXIT, , TRUE, ACT$GL_NO_XAREA_Q) ! Set the flag to indicate no exec area was
1010     0988 1 |
1011     0989 1 |

```

: 1013 0990 1 |  
: 1014 0991 1 | Call subexpressions we need from the library  
: 1015 0992 1 |  
: 1016 0993 1 |  
: 1017 0994 1 | SEM\_NODE\_ID : Node id parsing  
: 1018 0995 1 | SEM\_ACCESS : General access string parsing  
: 1019 0996 1 | SEM\_QUOT\_STR : Quoted string  
: 1020 0997 1 | SEM\_LINE\_ID : Line ID  
: 1021 0998 1 | SEM\_CIRC\_ID : Circuit ID  
: 1022 0999 1 | SEM\_LOG\_TYP : Logging type  
: 1023 1000 1 | SEM\_OBJECT\_ID : Object name/number

NCPSTAVRB  
V04-000

Verb Parse States and Data  
Object Listing of Parse Table

H 10

16-Sep-1984 01:41:13

14-Sep-1984 12:48:33

VAX-11 Bliss-32 V4.0-742  
[NCP.SRC]NCPSTAVRB.832;1

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: 1025  
: 1026  
: 1027  
: 1028

1001 1 %SBTTL 'Object Listing of Parse Table'  
1002 1  
1003 1 END  
1004 0 ELUDOM

!End of module

NC  
VO

0271 AH-BT13A-SE  
VAX/VMS V4.0

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